

STANFORD UNIVERSITY MEDICAL CENTER

DEPARTMENT OF GENETICS

November 22, 1977

Professor Edward P. Radford
Department of Epidemiology
Graduate School of Public Health
University of Pittsburgh
Pittsburgh, PA. 15261

Dear Professor Radford:

Thank you for your letter of November 16th and the reprints which I was glad to have for closer perusal.

Your studies do answer the questions about inherent predisposition to cancer on the part of patients with ankylosing spondylitis. There was, however, a variant of that question that is recited in your letter, but which I believe would be difficult to address from any of the available data. That is the postulation that these patients, owing to the underlying immunological disturbance, may have a response to radiation which is not typical of that of the bulk population. There is no reason a priori to suggest whether they should be more or less sensitive in the yield of cancers per unit radiation dose. It is not at all implausible that there should be a difference. This kind of interaction may appear less far fetched if one looks at tuberculosis from a similar point of view: there is certainly no reason to believe that the patients have had a different exposure to the organism, but your own statistics suggest a different interaction with it.

It may be futile to suggest such elaborate interactions if there are no experimental or observational data with which to check them! However, if there are discrepancies in case yield in the spondylitis series, compared to other observations, there may be some point in reviving these distinctions.

Experimentally, the most useful would be studies on the interaction between immunosuppression and radiation effect, and if you have been able to find any instances of such efforts I would be most interested to hear about them.

I am glad to know about your new role on BEIR and hope that we might be in some contact about these questions from time to time. If Jim Crow remains on your committee, however, I have no anxiety about the care and sobriety with which the genetic side of these problems will be addressed.

Yours sincerely,

Joshua Lederberg
Professor of Genetics

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